

13. Install the pulse generator assembly as described in this chapter.

14. Adjust the ignition timing as described in Chapter Three.

### IGNITION COIL

The ignition coil is located on the backbone of the frame.

#### Removal/Installation

1. Remove the seat/rear fender assembly.
2. Remove the fuel tank as described in Chapter Six.
3. Disconnect the high voltage lead from the spark plug (A, **Figure 65**).
4. Remove the nuts and lockwashers (B, **Figure 65**) securing the ignition coil to the frame.
5. Disconnect the primary electrical connector (C, **Figure 65**) going to the ignition coil and remove the coil.
6. Install by reversing these removal steps. Make sure all electrical connections are tight and free of corrosion.

### Testing

The ignition coil is a form of transformer which develops the high voltage required to jump the spark plug gap. The only maintenance required is that of keeping the electrical connections clean and tight and occasionally checking to see that the coil is mounted securely.

If the condition of the coil is doubtful, there are several checks which may be made.

#### Dynamic test

First, as a quick check of coil condition, disconnect the high voltage lead from the spark plug. Remove the spark plug from the cylinder head. Connect a new or known good spark plug to the high voltage lead and place the spark plug base on a good ground such as the engine cylinder head (**Figure 66**). Position the spark plug so you can see the electrodes.

#### WARNING

*On models with a CDI ignition system, if it is necessary to hold the high voltage lead, do so with an insulated pair of pliers. The high voltage generated by the CDI could produce serious or fatal shocks.*

Turn the engine over with the recoil starter. If a fat blue spark occurs, the coil is in good condition; if not, proceed as follows. Make sure that you are using a known good spark plug for this test. If the spark plug used is defective the test results will be incorrect.

Reinstall the spark plug in the cylinder head.

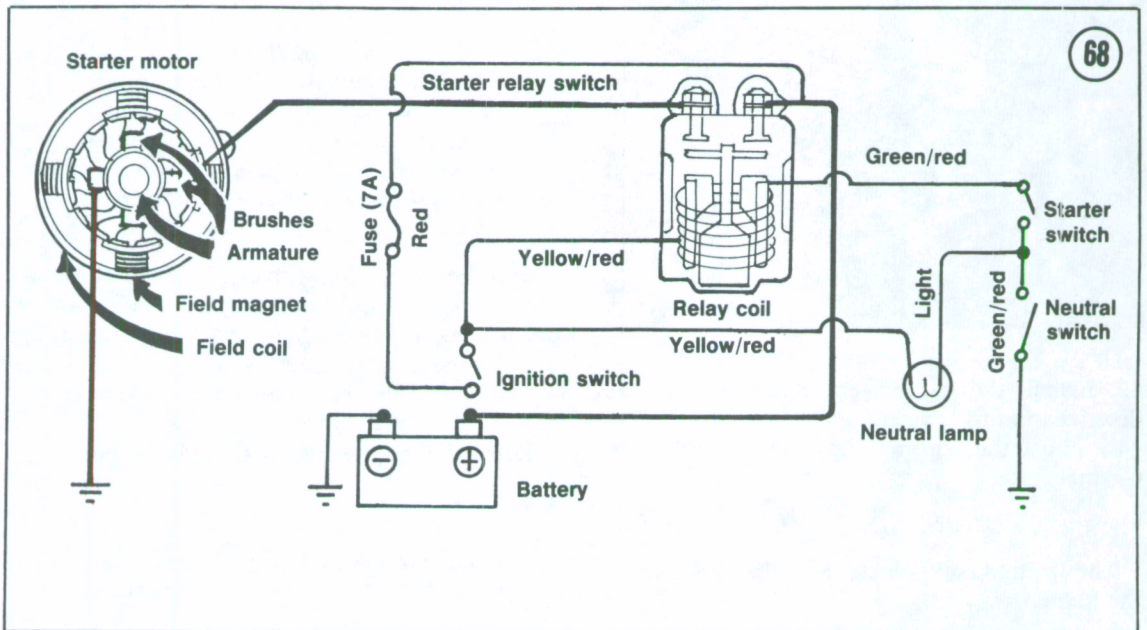
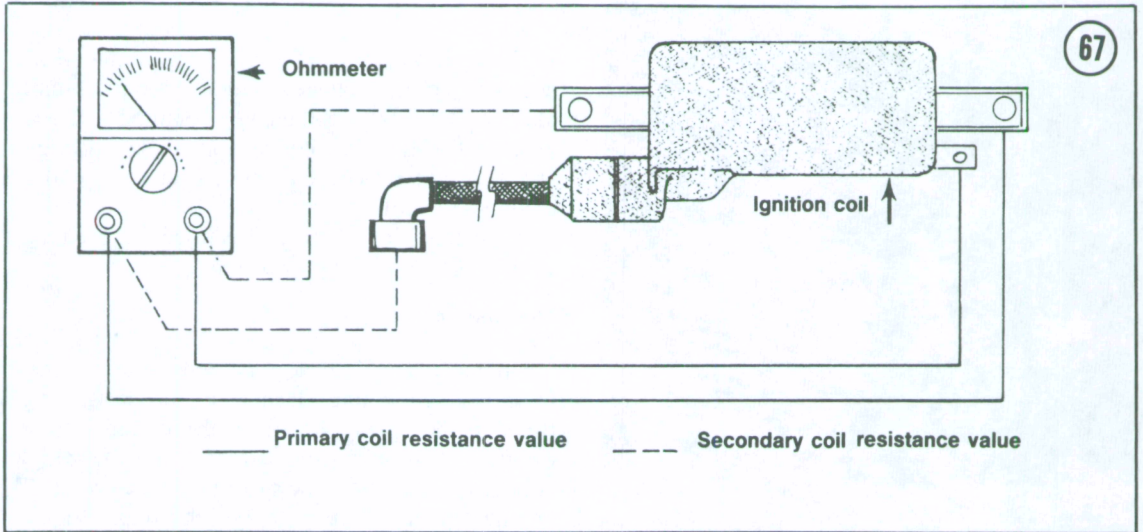
#### Static test

Honda does not provide resistance specifications for all models. Refer to **Figure 67** for this procedure.

#### NOTE

*In order to get accurate resistance measurements the coil must be at approximately 68° F (20° C).*

1. Disconnect all ignition coil wires before testing.
2. Measure the coil primary resistance using an ohmmeter set at  $R \times 1$ . Measure between the primary terminal and the mounting flange. The reading should be as follows:
  - a. All ATC70: 0.2-0.3 ohms.
  - b. 1981-on ATC110: 0.2-0.8 ohms.
  - c. ATC125M: 10-18 K ohms.
  - d. All others—continuity should exist.



3. Measure the secondary resistance using an ohmmeter set at  $R \times 100$  or  $R \times 1,000$ . Measure between the secondary lead (spark plug lead) and the mounting flange or green ground wire. The reading should be as follows:

- All ATC70: 9-11 ohms.
- 1981-on ATC110: 8-15 ohms.
- ATC125M: 3-5 K ohms.
- All others—continuity should exist.

4. If the coil resistance does not meet either of these specifications, the coil must be replaced. If the coil exhibits visible damage, it should be replaced.

### STARTING SYSTEM (MODELS SO EQUIPPED)

The starting system consists of the starter motor, starter gears, solenoid and the starter button.

The layout of the starting system is shown in Figure 68. When the starter button is pressed, it engages the starter solenoid switch that completes the circuit allowing electricity to flow from the battery to the starter motor.

#### CAUTION

*Do not operate the starter for more than 5 seconds at a time. Let it rest*

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